NBN-00017-01.02-070486

SITE SUMMARY

ISSUE:

- Norfolk Naval Base, Norfolk, Virginia: Site 1, Camp Allen Landfill Area A.

SUMMARY:

- The results of groundwater sampling indicated localized areas of contamination from organic compounds within the landfill. Some inorganic constituents were also detected at elevated levels in groundwater and surface water at the site. Some of these compounds exceed EPA MCLs, CWA criteria or SWCB groundwater standards. However, some of the chemical analyses that were made and sampling locations are not adequate to fully evaluate the impact of the landfill on groundwater and surface water quality. Additional sampling will be performed as part of the remedial investigation.

BACKGROUND:

- The Camp Allen Landfill, Area A includes an area of approximately 43 acres. Disposal operations at the landfill were conducted from the early 1940s until about 1974. The majority of waste disposal included sludges, metal plating wastes, cleaning sludges, and paint stripping residues. Other material included incineration ash, fly and bottom ash from the Navy power plant, chlorinated organic solvents, acids, caustics, paints, paint thinners, pesticides, asbestos, scrap metal, and construction and demolition debris.

- Previous studies at the site included: an Initial Assessment Study completed in 1983, a Site Suitability Study for the brig expansion in 1984, and Confirmation Study interim report completed in 1988.

DISCUSSION:

- These investigations have included the installation of shallow monitoring wells and completion of a groundwater and surface water sampling and analysis program. Fourteen monitoring wells were installed in and around the landfill. Groundwater and surface water sampling events occurred in 1983, 1984, and 1986.

- Organic compounds were detected at elevated concentrations at

location B-20W. The compounds detected in the highest concentrations were trans-1,2-dichloroethylene, toluene, trichloroethylene, vinyl chloride, phenol, and methyl isobutyl ketone. It appears as though the concentrations were decreasing with time. Some inorganic constituents were also detected at elevated levels in groundwater and surface water at the site. However, these inorganic concentrations represent total metals concentrations and, therefore, may not be indicative of metals that are dissolved in the groundwater or surface water. Monitoring wells that were sampled during the Confirmation Study did not provide adequate coverage of potential flow paths away from the landfill.

FUTURE PLANS:

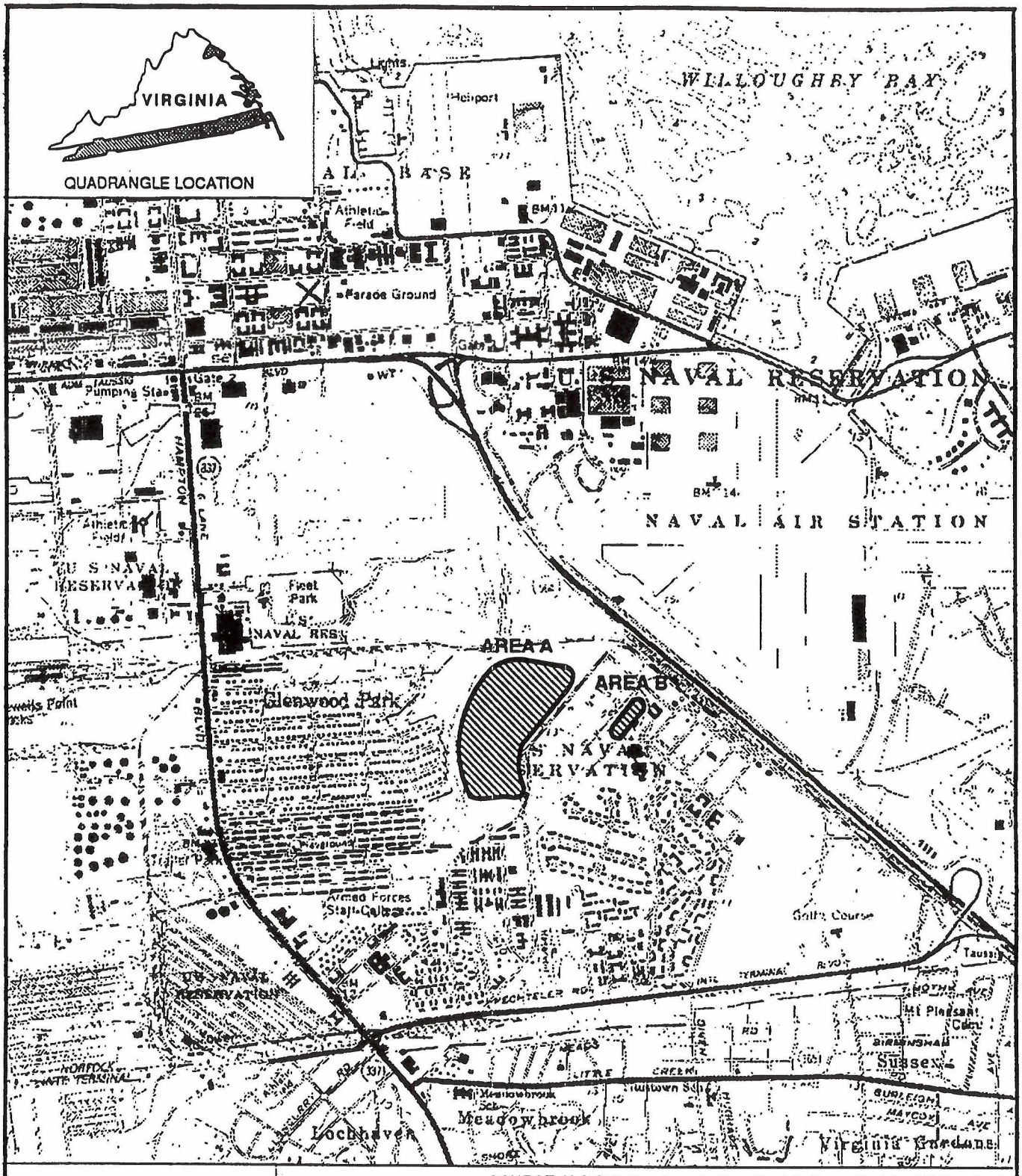
- Fourteen monitoring wells will be installed at the site. Nine of the wells will be shallow (25 feet deep) and the remaining five will be deep (60 feet). These wells will be installed to provide a better understanding of the potential for the landfill to impact the shallow and deep groundwater.

- Twenty-one groundwater samples will be collected from existing and new monitoring wells. Eight surface water and sediment samples will be collected from the drainage adjacent to the site.

- In-situ hydraulic conductivity tests will be performed in ten of the monitoring wells to assist in determining the rate of groundwater flow at the site.

- A remedial investigation report will be prepared that summarizes and interprets the data collected during this investigation and from the previous investigations. As part of the report, a base-line risk assessment will be conducted at the site to perform human health risk characterization. A feasibility study report will be prepared to select and describe remedial actions that would be appropriate for mitigating confirmed contamination.

WDC30868.B0/D1/01



Legend

Camp Allen Landfill

SOURCE: U.S.G.S. Quadrangle Map, Norfolk North, Virginia, 1986 revised.

Figure 1-1

CAMP ALLEN LANDFILL, AREAS A AND B LOCATION

Norfolk Naval Base, Norfolk Virginia

CH2MHILL

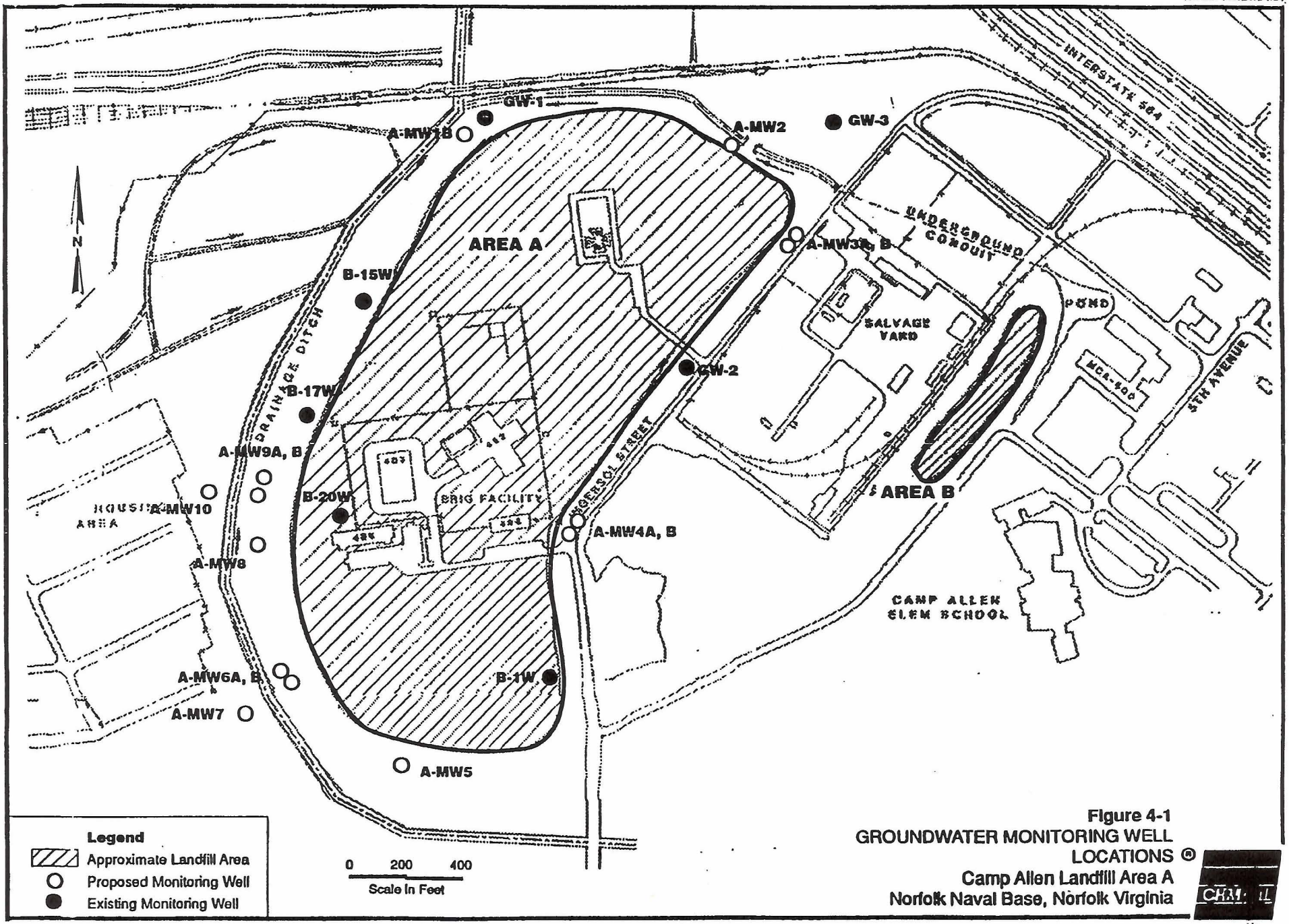


Figure 4-1
GROUNDWATER MONITORING WELL LOCATIONS ®
Camp Allen Landfill Area A
Norfolk Naval Base, Norfolk Virginia